

ABSTRACT

Introduction guides 12 are provided above and below a sheet-introduction opening portion of a pressure-reduced chamber 10, and heating means 17 is provided between the introduction guides. Each resin sheet 3 is attracted and attached respectively to the circumferential surface of a corresponding emboss roller 11 by reducing pressure. Pins 112 of the emboss roller 11 are truncated cone-shaped. The ratio of the total area of the lower bases of the pins 112 to the area of the circumferential surface of the emboss roller is 0.5 or more. The rising angle θ of the pin side face, in the vertical plane including the central axis of the pins 112, is in the range from 50 degrees to 70 degrees. Furthermore, a multilayered hollow structure plate 140 is formed by attaching non-air-permeable sheets 130 onto both the front and back of a core member obtained by fusing together hollow protrusions 112 in two thermoplastic resin sheets. A sound absorbing material 150 is provided on at least one of the front and back side thereof, and small holes 114a opened in the multilayered hollow structure plate are formed in liner portions 114 and the non-air permeable sheet 130 only in the positions that matches the liner portions 114.